

**IN THE CLAIMS**

Claim 1. (Currently Amended) An audio reproducing apparatus, comprising:

a distributing ~~uniteircuit~~ for receiving input audio signals of N channels (where  $N \geq 5$ ,  $N$  is an integer) including at least a first channel signal, a second channel signal, a third channel signal, a fourth channel signal, and a fifth channel signal~~front left channel directional component, and a back left channel directional components, a front right channel directional component, and a back right channel directional components, and a sound field image signal; said distributing unit processes said fifth channel signal to produce combined signals of N-1 channels by respectively adding said fifth channel signal to at least said first channel signal, said second channel signal, said third channel signal, and said fourth channel signal, wherein said combined signals~~ circuit processing said sound field image signal to produce at least two processed signals which are added to at least some of said input audio signals, whereby said distributing circuit generates audio signals of N-1 channels that represent the positions of sound images at least corresponding to the front left channel directional component, and the back left channel directional component, the front right channel directional component, and the back right channel directional components as sound image components;

a first signal processing ~~uniteircuit~~ for processing the ~~combinedaudio~~ signals of N-1 channels ~~N-1 channels output from the distributing circuit on each channel so as to produce first processedoutput audio signals having an equivalent sound field of M (where  $M < N-1$ , M is an integer) speakerselectrical acoustic converting units; and~~

a second signal processing ~~uniteircuit~~ for receiving the ~~audio signals from the first signal processing circuit and~~

equivalently processing the first processed~~audio~~ signals corresponding to transfer functions from the M speakerselectric~~acoustic converting units~~ to both ears of the listener and producing output audio signals,

wherein the output audio signals of the second signal processing unit~~electric~~ are reproduced with the M speakerselectric~~acoustic converting units~~.

Claim 2. (Currently Amended) An audio reproducing apparatus, comprising:

a distributing circuit~~unit~~ receiving input audio signals of N channels (where  $N \geq 5$ , N is an integer) including at least a first channel signal, a second channel signal, a third channel signal, a fourth channel signal, and a fifth channel signals~~a sound field image signal, a front left channel directional component, and a back left channel directional components, and a front right channel directional component, and a back right channel directional components~~, the distributing circuit~~unit~~ including a variable attenuating circuit~~unit~~ for receiving the fifth channel signal~~sound field image signal~~, whereby a varying amounts of the fifth channel signal~~sound field image signal~~ are is added to at least said first channel signal, said second channel signal, said third channel signal, and said fourth channel signal to produce respective combined signals of N-1 channels, said combined signals~~some of the audio signals of N channels, said distributing circuit outputting audio signals that represent~~ representing the positions of the sound images of N-1 channels;

a first signal processing circuit~~unit~~ for processing the combined~~audio~~ signals of N-1 channels N-1 channels~~output from the distributing circuit on each channel~~ so as to produce first processed~~output audio~~ signals having an equivalent sound

field of  $M$  (where  $M < N-1$ ,  $M$  is an integer)  
~~speakersselectrical—acoustic converting units; and~~

a second signal processing ~~circuitunit~~ for ~~receiving~~  
~~the audio signals from the first signal processing circuit and~~  
equivalently processing the first processed~~audio~~ signals  
corresponding to transfer functions from the  $M$  ~~speakersselectric~~  
~~—acoustic converting units~~ to both ears of the listener ~~and~~  
producing output audio signals,

wherein the output audio signals of the second signal  
processing ~~circuitunit~~ are reproduced with the  $M$   
~~speakersselectric—acoustic converting units.~~

Claims 3-7. (Cancelled)

Claim 8. (currently amended) The audio reproducing  
apparatus as set forth in claim 1 further comprising:

an output for supplying the first processed~~output~~  
~~audio~~ signals of the first signal processing ~~circuitunit~~ to an  
outside of the apparatus;

a detecting ~~circuitunit~~ for detecting a motion of the  
head of the listener; and

a controller for controlling the second signal  
processing ~~circuitunit~~ ~~according—corresponding~~ to an output  
signal of the detecting ~~circuitunit~~;

wherein the output audio signals of the second signal  
processing ~~circuitunit~~ are wirelessly supplied to the  $M$   
~~speakersselectric—acoustic converting units.~~

Claim 9. (new) The audio reproducing apparatus as set  
forth in claim 1, wherein said fifth channel signal includes  
only low frequency content.

Claim 10. (new) The audio reproducing apparatus as set forth in claim 1, wherein said input audio signals include an additional channel signal, and said distributing unit respectively combines said additional channel signal with said first channel signal and said second channel signal.